

## ***Vehicle Maintenance and Repair Technologies (Associate of Applied Science), Diesel Heavy Truck Technology Concentration***

The purpose of this program is to provide specialized classroom instruction and practical shop experience to prepare individuals to engage in the servicing and maintenance of all types of medium/heavy trucks at the entry level. The program prepares the individual to select, safely use, and maintain hand and power tools, jacks, and hoisting equipment. Instruction in the diagnosis of malfunctions and the repair of engines; fuel, electrical, cooling, and brake systems; drive train; suspension systems and maintenance are included.

The competencies in the Diesel Heavy Truck Technology program are directly correlated with the knowledge required to prepare an individual for the certification tests given by the **National Institute for Automotive Service Excellence (ASE)**. The content is organized into competency-based courses of instruction that specify occupational competencies the individual must successfully complete according to the priorities for tasks established by the **ASE Education Foundation**.

### Medium/Heavy Truck Technology Entrance Requirements

- Minimum age 18
- Must possess valid driver's license
- Pass Drug and Background Check
- Math and writing proficiencies

To receive the Associate of Applied Science degree, the student must:

- Have a cumulative GPA of 2.00 or better in all credit hours that are to be used towards the degree
- Earn a "C" or better in ENGL 1013 and in the GenEd MATH course
- Earn a "C" or better in MVSBS and DHTT courses
- Earn an "S" (Satisfactory) in DHTT 1151, 1251, 1351, and 1451

### **Program Outcomes. Upon successful completion of the program, the graduate will be able to:**

1. Demonstrate the skills needed for entry and advanced levels of employment in the diesel heavy truck technology industry.
2. Demonstrate the diagnosis of malfunctions and repair of engines, fuel, electrical, cooling, and brake systems, drivetrain, and suspension systems.
3. Demonstrate the knowledge needed to pass the certification exams given by the National Institute for Automotive Service Excellence (ASE).
4. Demonstrate safe and efficient work practices, basic occupational skills, employability skills, and strong work ethics.

### **PROGRAM OF STUDY**

<b>First Semester</b>		<b>Credit Hrs.</b>
MVSBS 1002	Fundamentals of Safety	2
MVSBS 1003	Motor Vehicle Service Basics	3
MVSBS 1604	Electrical Essentials	4
ENGL 1013	English Composition I	3

GenEd MATH	Any General Education course in Mathematics	3
<b>Semester credit hours:</b>		<b>15</b>

**Second Semester**

DHTT 1404	Truck Brake Systems	4
DHTT 1803	Preventative Maintenance Inspection	3
DHTT 1151	Truck Internship I	1
GenEd Natural Sci	Any department-approved GenEd course in a Natural Science	3
GenEd Humanities	Any department-approved GenEd course in the Humanities*	3
<b>Semester credit hours:</b>		<b>14</b>

**Third Semester**

MVSB 1703	Heating and Air Conditioning	3
DHTT 1504	Truck Suspension and Steering	4
DHTT 1251	Truck Internship II	1
<b>Semester credit hours:</b>		<b>8</b>

**Fourth Semester**

GenEd Soc/Behav Sci	Any General Education course in the Social or Behavioral Sciences	3
DHTT 1903	Hydraulic Systems	3
DHTT 1304	Truck Drivetrain	4
DHTT 1351	Truck Internship III	1
<b>Semester credit hours:</b>		<b>11</b>

**Fifth Semester**

DHTT 1014	Truck Engine Controls	4
DHTT 1103	Truck Engine Design	3
DHTT 1614	Truck Advanced Electrical	4
DHTT 1451	Truck Internship IV	1
<b>Semester credit hours:</b>		<b>12</b>
<b>Total program hours:</b>		<b>60</b>

**Diesel Heavy Truck Technology Credentials**

		<b>Credit Hrs.</b>
MVSB 1003	Motor Vehicle Service Basics	3
MVSB 1604	Electrical Essentials	4
DHTT 1404	Truck Brake Systems	4
DHTT 1504	Truck Suspension and Steering	4
DHTT 1151	Truck Internship I	1
<b>CTS, Truck Suspension, Steering, and Brakes</b>		<b>16</b>

MVSB 1003	Motor Vehicle Service Basics	3
MVSB 1604	Electrical Essentials	4
DHTT 1304	Truck Drivetrain	4
DHTT 1903	Hydraulic Systems	3
DHTT 1151	Truck Internship I	1

DHTT 1251	Truck Internship II	1
<b>CTS, Truck Drivetrain</b>		<b>16</b>
MVSB 1003	Motor Vehicle Service Basics	3
MVSB 1604	Electrical Essentials	4
DHTT 1103	Truck Engine Design	3
DHTT 1014	Truck Engine Controls	4
DHTT 1614	Truck Advanced Electrical	4
DHTT 1351	Truck Internship III	1
DHTT 1451	Truck Internship IV	1
<b>CTS, Truck Electrical Systems</b>		<b>20</b>

**Technical Diploma (TD), Diesel Heavy Truck Technician:** all MVSB and DHTT courses  
 MVSB 1002, MVSB 1003, MVSB 1604, MVSB 1703, DHTT 1014, DHTT 1103, DHTT 1151,  
 DHTT 1251, DHTT 1304, DHTT 1351, DHTT 1404, DHTT 1451, DHTT 1504, DHTT 1614,  
 DHTT 1803, and DHTT 1903 **45**

**AAS, Med/Heavy Truck Technology:** all MVSB and DHTT courses (45 credit hours) and  
 General Education courses (15 credit hours: ENGL 1013, GenEd MATH, Natural Science  
 elective, Social Science/Behavioral Science elective, Humanities elective\*) **60**

\* Any approved General Education course in English Literature, History, Humanities, or Philosophy

For additional information, contact the Department Chair for Automotive Technology at (225) 216-8338.